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Rebuttal of the Ecological Incidents Summary located in the EPA's Environmental Risk Assessment for Diazinon (October 2, 2000)

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STATEMENT OF CONFIDENTIALITY CLAIM

Test Substance: Diazinon

Report Title: Rebuttal of the Ecological Incidents Summary located in the EPA's Environmental Risk Assessment for Diazinon (October 2, 2000)

No claim of confidentiality is made for any information contained in this study on the basis of its falling within the scope of FIFRA Section B 10 (d) (1) (A), (B) or (C).

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CERTIFICATION OF GOOD LABORATORY PRACTICE

The USEPA Good Laboratory Practice Requirements as set forth in 40 CFR Part 160, August 17, 1989, do not apply to this project as no data was generated. This project consists of a compilation of information in response to EPA EFED Risk Assessment on Diazinon.

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INTRODUCTION

This document compares and contrasts certain inconsistencies and apparent errors related to the Ecological Incidents Summary section located in the EPA's Environmental Risk Assessment for Diazinon (Risk Assessment), dated 2 October 2000). This summary section of the Risk Assessment is based on ecological incidents submitted to EPA by various state and federal agencies and housed in EPA's Ecological Incident Information System (EIIS) as of December 17, 1998. The EIIS is a large database containing ecological incident reports involving a wide range of pesticides. The reported ecological incidents involve alleged adverse effects on fish, animals, invertebrates, plants, birds, beneficial insects or humans due to a labeled use, misuse or spill of a pesticide or pesticides involved in a particular incident.

In order to check EPA results and conclusions presented in the Risk Assessment specifically related to avian incident reports, Compliance Services International (CSI) obtained copies of the original reports cited for diazinon in the EIIS from Syngenta. These reports were obtained by Syngenta through a Freedom of Information Act request asking for copies of all EIIS reports related to diazinon. CSI assimilated these report data into a database and conducted independent summary analyses. Initially, one CSI staff member entered pertinent report data into the database. When this step was completed, a second CSI staff member independently compared each report with the corresponding database entry for accuracy. If conflicts regarding accuracy of the database arose, the two staff members met, discussed the conflicting results, and came to a mutual agreement on how best to represent the reported data.

The CSI database entry fields included, but were not limited to: date of the incident; incident number; date of report; state and county involved in the incident; reporting agencies conclusions; date of chemical analysis; and matrix analyzed. CSI then queried this database to verify the incident summary numbers reported by EPA in the Risk Assessment. For example, to check the EPA assertion that there were 37 bird mortality incidents involving diazinon between the beginning of 1984 and the end of 1988, we ran a query, in our database, which limited the incidents to those that occurred from 1 January 1984 through 17 December 1988. We then removed duplicates and updates of previously reported incidents and found that there were only 20 bird mortality incidents during this time period.

The remainder of this document presents eight primary EPA conclusions based on summaries of the EIIS data and reported in the Risk Assessment. We then offer our assessment of each of these conclusions, based on our reanalysis of the EIIS report data. Finally, we recommend changes to the avian incidents portion of the EPA's Risk Assessment for Diazinon based on these reanalyses.

EPA RISK ASSESSMENT EIIS CONCLUSIONS

Many conclusions were included in the Ecological Incidents Summary section (pages 158-164) of the Risk Assessment. Some of the major EPA conclusions and comments were:

1. There are "roughly 200" incidents involving diazinon that have been entered into the EIIS database.
2. There are 165 incidents in the database that involve avian mortality. Diazinon was listed as causative agent for the second largest number of bird mortalities, exceeded only by carbofuran.
3. Incidents are categorized into one of 5 certainty levels: highly probable; probable; possible; unlikely, or unrelated.
4. Incidents are categorized as to use/misuse. Misuse includes such things as intentional baiting to kill wildlife.
5. Table 87 of the Risk Assessment claims there are 114, 90, and 13 incidents involving only waterfowl, only non-waterfowl, or both waterfowl and non-waterfowl, respectively. Table 88 of the Risk Assessment summarizes these incidents by number of individuals per incident.
6. The states reporting the highest number of incidents were New York (61), California (52), Virginia (31) and Georgia (19).
7. In a 1987 field study, 85 widgeon were killed on a turf site after 30-40 minutes of feeding. Mortality was at an attempted 2 lb AI/A application rate of a liquid formulation. This indicates that diazinon is toxic enough to birds so that most reductions in application rates are not likely to prevent mortality.
8. EPA Conclusion/Comment # 8. "Diazinon has caused widespread and repeated mortality of birds. The mortality has been well documented over many years and we [EPA] have high certainty regarding diazinon's risk to birds. Diazinon was cancelled for use on golf courses and sod farms due to its high risk to birds. The risk to birds is very high on other sites as well, since birds can be attracted to a wide range of turf and agricultural sites. The continued mortalities over the years make it clear that neither the modestly lowered application rates on turf sites...nor the various added label environmental hazard statements, have been adequate to prevent bird mortalities. Mortality is likely to continue in the future if diazinon continues to be used on sites where birds can be exposed." (Page 164, EPA Environmental Risk Assessment for Diazinon).

Findings From CSI's Re-Analysis of the Incidents Data That Place in Doubt EPA Risk Assessment Conclusions and Comments

Discussion of EPA Conclusion/Comment #1: There are "roughly 200" incidents involving diazinon that have been entered into the EIIS database.

The total number of incident reports received by Syngenta from EPA was 198, which compares to the "roughly 200 incidents" reported by EPA in the Risk Assessment. These

include all ecological incident reports submitted regarding diazinon, including those involving birds, fish, mammals, beneficial insects, plants and humans. However, upon closer inspection of the original reports, CSI found many incidents that were reported twice or were updates of previously reported incidents. In fact, 17 of the 198 original incidents are reported twice (Table 1). For example, Incident I003908-0015 and I003189-001 both report the same incident involving a misuse of diazinon in Amherst, New York, that resulted in the deaths of two American Crows and four Mallards. This means that approximately 9% of the reported incidents involving diazinon were actually duplicates in the EPA EIIS database.

In addition, there are 12 incidents (Table 2) counted as independent reports by EPA that are actually updates or summaries of earlier incidents. These updates usually included additional information regarding toxicological analysis or additional information regarding the incident itself. Also, there are 4 incidents (Table 3) which appear to be duplicate incidents based on report details, but cannot be completely confirmed as duplicates due to critical data missing from report documents. One example of this involves Incidents I001920-001 and I004697-088. They appear to be the same because they are both 6(a)(2) incidents involving diazinon use on bees, and both were filed on 4 February 1995. However, one of the documents does not contain any location or contact information, so we cannot be certain that they are duplicate reports, despite strong supporting evidence that they in fact are.

If all 33 reported duplicate, update or suspected duplicate incidents are considered together, approximately 17% of the diazinon-related incidents reported in the EPA EIIS database should be listed as supplemental, not original, data. Therefore, the actual number of original incidents involving diazinon is 169, not the 198 reported by EPA in the Risk Assessment.

Discussion of EPA Conclusion/Comment #2: There are 165 incidents in the database that involve avian mortality. Diazinon was responsible for the second largest number of bird mortalities, exceeded only by carbofuran.

On Page 158 of the Risk Assessment, EPA states that there are 165 known diazinon-related avian mortality incidents and that this represents the second highest total of known pesticide-related incidents. However, consideration of the duplicate incidence reports noted above brings this claim by EPA into question. If duplicate avian incidents are removed from the database, the actual number of avian-related incidents drops from 165 to 143 (Table 4). This represents an approximate 15% decrease in the number of diazinon-related incidents for birds. While CSI did not have available the rankings for avian-related incidents for each pesticide, a 15% drop in the total number of avian incidents calls into question the claim that diazinon has the second highest total of all pesticides.

Discussion of EPA Conclusion/Comment #3: Incidents are categorized into one of 5 certainty levels: highly probable; probable; possible; unlikely, or unrelated.

CSI questions the inclusion of incidents that are categorized as unrelated to diazinon in a list of incidents that are supposed to involve diazinon. Since a certainty categorization was not available for any of the 198 incident reports sent to CSI by Syngenta, it is impossible to comment on the accuracy of the numbers attributed to each category. However, there are several incident reports that are summaries of multiple incidents or newspaper articles that discuss organophosphates in general. There are also other incidents that do not specifically list diazinon as the suspected causative agent. Ten of the 143 original reports involving bird mortality did not involve diazinon (Table 5), or did not specifically indicate that diazinon was the causative agent. These 10 incidents were located in the copies of the individual EIIS documents involving diazinon obtained from EPA by Syngenta. Therefore, these 10 non-diazinon incidents are considered irrelevant to the Risk Assessment, and the total number of avian incidents involving diazinon drops to 133.

Discussion of EPA Conclusion/Comment #4. Incidents are categorized as to use/misuse. Misuses include such things as intentional baiting to kill wildlife.

EPA claims there are 18 misuse records in the EIIS database involving diazinon; our investigations find 20 incidents of misuse (Table 6). The 20 incidents include 8 unintentional and 12 intentional misuses of diazinon. Unintentional misuses mostly involve incidents where treatment unintentionally occurred at higher than labeled use rate. Intentional misuses included such things as soaking bread with diazinon and feeding the bread to waterfowl or intentionally applying diazinon at higher than the labeled use rate.

Only eighteen of the 20 misuse incidents were avian related. While these 18 avian incidents were diazinon related, they represent uses that are beyond approved label application rates and their value in assessing risk from label-approved uses is questionable. Thus, it is reasonable to remove these 18 incidents from consideration as avian-related incidents involving diazinon because they are violations of the law and would likely not have occurred if label directions were followed. Removal of 18 additional incidents from the current total of 133 avian incidents involving diazinon brings the number of avian incidents directly linked to diazinon to 115.

Discussion of EPA Conclusion/Comment # 5: Table 87 of the Risk Assessment claims there are 114, 90, and 13 incidents involving only waterfowl, only non-waterfowl, or both waterfowl and non-waterfowl, respectively. Table 88 of the Risk Assessment summarizes these incidents by number of individuals per incident.

There are confounding issues involving individual organism counts presented in the EPA's Ecological Incidents Summary. These include EPA Ecological Incidents Summary Table 87 titled "Number of Incidents by Species" (reproduced as Table 7 in this document) and Table 88 titled "Numbers of Individuals and Incidents Categorized by

Waterfowl and Non-Waterfowl" (reproduced as Table 8 in this document). These tables need to be discussed and clarified based on changes to the total EIIS incident numbers discussed above. In addition, a discussion of turf and residential lawn use incidents is warranted as these uses have or soon will be removed from the label.

Given the above discussion of duplicate and update records, the total number of incidents that involve specific classes of avian species is in question (Table 7). The numbers that CSI reports in Table 7 are a result of running queries on the data located in the CSI EIIS database for diazinon. For example, when the database was queried to determine how many incidents there were involving waterfowl, the query was also set up to remove duplicate entries. This specific query returned a total number of 74 incidents involving waterfowl. EPA claims there were 114 incidents involving waterfowl (Table 87 of the Risk Assessment). These queries have been independently checked by several of CSI's professional staff and accurately reflect the ecological incident reports originally received by Syngenta from EPA. Similarly, EPA reported 90 incidents involving non-waterfowl, whereas CSI reports only 77 (Table 7). In addition, EPA counted 13 incidents involving both waterfowl and non-waterfowl, while CSI counted only 8 (Table 7).

By conducting similar database queries, CSI found a great discrepancy in the totals presented in Table 88 of the Risk Assessment. Table 8 presents EPA and CSI findings, and uses EPA's summary categories for number of individuals involved as a basis for comparison. CSI found the number of incidents by summary category to be markedly lower than those reported by EPA (Table 8). For example, EPA found 9 incidents that had 101-1000 waterfowl involved where CSI staff reported zero. We find the EPA claim of nine large avian kills particularly alarming when the EIIS data does not contain any reports that corroborate this number. The only count which CSI and EPA agree on for these categories is the number of incidents involving 6-10 non-waterfowl (13).

EPA Conclusion/Comment #6. States reporting the highest number of incidents include New York (61), California (52), Virginia (31) and Georgia (19).

The Ecological Incidents Summary for diazinon listed the states with the highest number of reported incidents as New York, California, Virginia and Georgia. CSI is in close agreement with EPA on total incidents in California, Virginia and Georgia. However, the EPA found 61 incidents from New York and our review of the data found only 37 (Table 9). CSI is not sure how this inaccuracy occurred in the EPA document. However, it is possible that some of the incidents reported in the New York State Wildlife Pathology Unit Annual Report (January 1, 1994 – May 3, 1995) and the New York State Wildlife Pathology Unit Annual Report (Fiscal Year 1995/1996) were counted twice. This may have occurred because there were two copies of both documents in the raw document copies CSI received from Syngenta.

Whatever the reason for the miscount, CSI found that New York actually reported 24 fewer incidents than reported by EPA. CSI also takes exception to the EPA statement that "It is likely that any state with a similar level of diazinon use on similar sites would have similar numbers of incidents with a similar effort in investigation and reporting". This

statement does not account for the spatial and temporal aspects of bird migration and climate/crop interactions. For example, if the majority of the population of one species of bird migrates through California at the time a pesticide is being applied in Washington State, this species is unlikely to be exposed to the compound upon arrival in Washington. While this is a simple example, it does express the complex nature of bird/crop/pesticide interactions and places in question any extrapolation (over space and time) of risk beyond actual reported incident trends.

EPA Conclusion/Comment #7. In a 1987 field study, 85 American Wigeon were killed on a turf site after 30-40 minutes of feeding. Mortality occurred at an attempted 2 lb AI/A application rate of a liquid diazinon formulation. This indicates that diazinon is toxic enough to birds that most proposed reductions in application rates are not likely to prevent mortality.

It should be noted that the incident involving 85 American Wigeon, which EPA cites in the Risk Assessment, was not included in the EIIS incidents obtained by Syngenta from EPA. In addition, American Widgeon and other waterfowl appear to be especially sensitive to the effects of diazinon when compared to other avifauna. Therefore, extrapolation to a conclusion that "diazinon is toxic enough to birds that most reductions of application rates are not likely to prevent mortality" based on one incident is unfounded. Also, this incident and this species sensitivity were contributors to the cancellation of diazinon use on golf courses. There is no data in the EIIS database since the cancellation (March, 1988) to support this claim.

EPA Conclusion/Comment # 8. "Diazinon has caused widespread and repeated mortality of birds. The mortality has been well documented over many years and we [EPA] have high certainty regarding diazinon's risk to birds. Diazinon was cancelled for use on golf courses and sod farms due to its high risk to birds. The risk to birds is very high on other sites as well, since birds can be attracted to a wide range of turf and agricultural sites. The continued mortalities over the years make it clear that neither the modestly lowered application rates on turf sites...nor the various added label environmental hazard statements, have been adequate to prevent bird mortalities. Mortality is likely to continue in the future if diazinon continues to be used on sites where birds can be exposed."

Many of the diazinon incidents reported are related to use on turf or at home. Commercial turf uses, including use on golf courses, have already been removed from the diazinon label. Although EPA states there are 17 reported incidents of avian exposure to diazinon on golf courses contained in the EIIS database, our examination of the original reports found only 5 which involved avian species on golf courses (Incidents I003131-001, I005774-001, I005744, I4169-002 and I003908-007). There were 63 incidents involving avian mortalities related to residential/urban use sites (including home lawn use).

The residential/urban uses of diazinon will be eliminated from the label by the end of 2003. Therefore, avian mortalities at residential/urban sites should be negligible or eliminated all together at that time.

Accounting for duplicate incidents (33), intentional/unintentional misuses (18), listing of non-diazinon incidents and incidents where the pesticide at fault was not determined (10), the actual number of avian cases related to diazinon drops from the 165 incidents as claimed by EPA (Table 4) to 115. This decrease of 50 incidents (i.e. > 30%) consists of 22 avian-related incidents that were duplicate/updated entries, 18 incidents that were misuses, and 10 incidents in which diazinon is either not involved or is not specified as the causative agent. The Ecological Incidents Summary states that diazinon has the second most bird related incidents of any pesticide listed in the EIIS database. However, with this updated and more accurate presentation of information, CSI feels that this statement may no longer be accurate.

RECOMMENDED REVISIONS TO THE ECOLOGICAL INCIDENTS SUMMARY SECTION OF THE EPA ENVIRONMENTAL RISK ASSESSMENT FOR DIAZINON

CSI recommends the following revisions to the EPA Risk Assessment.

1. The total number of diazinon related incidents involving birds, insects, humans, fish, mammals, and plants in the EIIS database (as of the EPA dates listed in the EPA Risk Assessment for Diazinon) should be revised. The "roughly 200" value as listed on page 160 of the Risk Assessment should be listed specifically as 198, as represented by those diazinon-related incidence reports received by Syngenta from EPA via a Freedom of Information Act request.

2. The EPA reported total of 198 avian and non-avian incidents should be reduced by 17 to account for duplicate incidents, by 12 to account for updates of previously reported incidents, and by 4 to account for unconfirmed but highly likely duplicate incidents (Tables 1, 2, and 3). The total number of diazinon-related incidence reports in the EIIS should equal 165 (for all species).

3. The EPA reported total of 165 avian only related incidents should be reduced by 18 to account for duplicates and updates of previously reported incidents. The total number of avian related incident reports should be 143 (for all avian species.

4. Relevant to assessing risk to avifauna from current labeled use rates and approved use sites, the revised report total of 143 should be further reduced to account for intentional (12) and unintentional (6) misuses of diazinon, which represent illegal or uncharacteristic applications. The revised total should also be reduced in order to remove incidents (10) that do not involve diazinon, or do not specifically indicate that diazinon was the causative agent. This brings the total relevant diazinon-related incidents to 115.

5. Of these 115 avian diazinon-related incidents, 68 were associated with turf/lawn uses, including golf courses and urban/residential sites. All turf uses have been withdrawn from labeled use, and all residential uses will be eliminated by 2003.

Thus, for assessing risk to birds from diazinon for the remaining, approved agricultural use sites, a total of 47 EIIS incidents appear to be relevant and should be considered when developing the final risk assessment and label language and guidelines.

6. Tables 87 and 88 of the risk assessment should be revised to reflect the updated data provided in Tables 7 and 8 of this document. The numbers in Tables 7 and 8 are considered to be accurate and are based on EPA data related to ecological incidents involving diazinon.

7. On the basis of our response to EPA Conclusion/Comment #6, the number of incidents reported for New York should be revised from the 61 reported by EPA to the 37 incidents reported in this document as having occurred in New York.

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Table 1. Incidents Repeated under Different EIIS Numbers

Incident Numbers
I003908-015 and I003189-001
I003908-016 and I003193-001
I003909-022 and I002683-001
I003909-023 and I003086-001
I003909-029 and I003098-001
I004169-002 and I003178-001
I004169-014 and I003180-001
I004169-047 and I003176-004
I004169-048 and I003176-005
I004169-064 and I003176-001
I004169-069 and I003183-001
I004169-072 and I003176-002
I004169-081 and I003185-001
I005292-001 and I004993-004
I005294-001 and I004993-006
I005510-002, I004169-034 and I003176-006

Table 2. Incidents Updated or Summarized Under Different EIIS Numbers

Incident Numbers
I005042-003 updates I003351-007
I005042-004 updates I003351-008
I005042-005 updates I003351-009
I005042-007 updates I003351-011
I005042-009 updates I003351-013
I005042-010 updates I003351-014
I005042-011 updates I003351-015
I005042-012 updates I003351-016
I005042-013 updates I003351-017
I005042-015 updates I003351-030
I003908-016 summarizes I003193-001
I004993-001 summarizes I005292-001

Table 3. EIIS Numbers for Incidents Believed to be the Same

I001920-001 is believed to be one of the incidents listed under I004697-088
I004993-006 is believed to be reported under I005294-001
I004993-008, I004646-002 and I004370-001 are believed to be the same incident

Table 4. Bird Mortality Incidents

	EPA Claims	CSI Findings[1]
Incidents before 1979	11	2
Incidents 1979-1983	17	8
Incidents 1984-1988	37	20
Incidents 1989-1993	42	40
Incidents 1994-1998	58	73[2]
Total Incidents	165	143

1. The number of total incidents includes misuses and cases where the compound found or used at the incident site was not diazinon. The number of total incidents does not include incidents that are duplicates entries, updates of original incidents, or incidents that are believed to be the same as a previously entered incident.
2. This number includes 4 incidents that do not involve diazinon, or do not specifically indicate that diazinon is the causative agent and 10 incidents that are either intentional or unintentional misuses.

Table 5. Incidents That do not Involve Diazinon, or do not Specifically Indicate That Diazinon was the Causative Agent

EIIS #	Summary of Report	Suspected Causative Agent
I000504-026	Listed as carbofuran toxicosis of one American Robin and an unknown bird.	Carbofuran
I000799-003	Listed as 2,4-D, phenoxy herbicide and oxamyl contamination of a large number of fish, waterfowl and non-waterfowl.	2, 4-D, phenoxy herbicide and oxamyl
I003176-003	The results of analysis indicated that birds had been poisoned with an insecticide, but no residues of diazinon or any other pesticide were found.	Unknown Insecticide
I004169-022	Diazinon was probably not associated with the mortality, as a host of agrichemicals were found in the carcass of a Great Horned Owl.	Unknown
I002510-002	Reported bat and American Robin mortalities appear to be related to resmethrin and permethrin applications.	Resmethrin and Permethrin
I004646-001	The State of Alabama claims that a bird deterrent is suspected in causing the loss of 16 Purple Martins. Diazinon is not labeled for use a bird deterrent and no analysis was done to determine what was responsible.	Unknown (suspected bird deterrent)
I004646-003	Toxicosis from an OP (organophosphate) compound was suspected in causing the deaths of Mallards, but diazinon was not specified in the document. There are numerous of OP compounds on the market.	Unknown OP compound or compounds
I002685-009	A table of various spill incidents involving pesticides from 1994 that caused the death of 50 Mallards. Toxicosis from an OP compound was listed as the cause, but diazinon was not specified in the document.	Unknown OP
I003826-001	Herbicide was sprayed on fence line and caused the mortality of an unknown bird. Diazinon is not an herbicide and there is no other evidence it was present.	Unknown Herbicide
I005042-015	Report assigns OP exposure to the loss of a hawk according to The California Department of Fish and Game. Probably related to methidathion exposure.	Methidathion

Table 6. Incidents that are Either Unintentional or Intentional Misuses

Unintentional Misuse	Intentional Misuse
I002294-001 (non-avian)	I003191-001 (avian)
I000200-035 (avian)	I000103-014 (avian)
I005895-241 (non-avian)	I005982-001 (avian)
I003193-001 (avian)	I000504-010 (avian)
I002339-001 (avian)	I003189-001 (avian)
I003188-001 (avian)	I002683-001 (avian)
I003639-001 (avian)	I003086-001 (avian)
I007371-016 (avian)	I005193-001 (avian)
	I003178-003 (avian)
	I004169-072 (avian)
	I003187-001 (avian)
	I003966-001 (avian)

Table 7. Number of Incidents by Category

	EPA Claims	CSI Findings*
Waterfowl	114	74
Non-Waterfowl	90	77
Waterfowl and Non-Waterfowl	13	8
Fish	13	14
Bees	2	1
Butterfly	2	1
Waterfowl, Fish & Reptile	1	0
Waterfowl, Fish & Non-Waterfowl	1	1
Waterfowl, Non-Waterfowl and Mammal	1	1

*Note: Values includes misuses and cases where diazinon was not the compound found or used at the incident site. Values do not include incidents that are duplicates entries (17), updates of original incidents (12), or incidents that are believed to be the same as a previously entered incident (4).

Table 8. Numbers of Individuals and Mortality Incidents Categorized by Waterfowl and Non-Waterfowl

Waterfowl	Number of Individuals per Incident	Number of Incidents Claimed by EPA	Number of Incidents According to CSI Findings*
	1-5	40	27
	6-10	23	14
	11-20	26	13
	21-50	22	13
	51-100	4	3
	101-1000	9	0
	Unknown/NR/etc.	7	0
	Total[#]	131	70
Non-Waterfowl	1-5	60	42
	6-10	13	13
	11-20	7	5
	21-50	13	9
	51-100	4	3
	101-1000	2	1
	Unknown/NR/etc.	6	0
	Total[#]	105	73

Notes:

(*) Values include misuses and cases where the compound found or used at the incident site was not diazinon. Values do not include incidents that are duplicates entries (17), updates of original incidents (12), or incidents that are believed to be the same as a previously entered incident (4).

(#) The CSI totals do not sum to 74 (waterfowl) and 77 (non-waterfowl) as indicated in Table 7 because the values in Table 7 refer to a count of all incidents, whereas this table refers only to incidents in which mortality occurred (143 as shown in Table 4). It is unknown why the EPA totals differ so greatly.

Table 9. States Reporting the Greatest Number of Incidents

State	Number of Incidents Claimed by EPA	Number of Incidents According to CSI Findings*
New York	61	37
California	52	51
Virginia	31	31
Georgia	19	19

*Note: Comparisons made in Table 9 are based on the entire set of 198 incident reports received.